

REMARKS

A. Rule 173(c) Statement of Status of Claims and Support for Claim Changes

Claims 1-9, 11, 12, 14, 19-22, 28-32, 34-40, 43-45 and 50-70 are pending, and claims 10, 13, 15-18, 23-27, 33, 41, 42, and 46-49 are canceled. Of the pending claims, claims 50-70 are new. The claims that have been amended, and the support in the original patent for the amendments, are set forth in the following chart. The term “wastewater” now replaces the term “dirty water” in independent claims 5 and 28 because, as Michael A. Morgan (the added inventor) explains in his declaration, “wastewater” is a term of art, whereas “dirty water” is not. See Declaration of Michael A. Morgan (“Morgan Decl.”) at ¶ 2.

| Claim Amendment | Example Support in Original Patent for the Amendment |
|---|--|
| 1. The term “the” was replaced with the term “an” to address the Office’s antecedent basis concern from the first Office Action. | Claim 1 of the original patent. |
| 2. The term “wherein” was replaced with the term “where” to improve the readability of the claim. | FIG. 1 of the original patent. |
| 3. The term “wherein” was replaced with the term “where” to improve the readability of the claim. | FIGS. 1 and 2 of the original patent. |
| 4. The term “said” was replaced with the term “the” and the term “wherein” was replaced with the term “where” to improve the readability of the claim. | Claim 1 of the original patent. |
| 5. The term “dirty water” has been replaced with “wastewater” in the preamble and with “wastewater that includes sewage and/or industrial waste” in the first element. The second and third elements of this claim have been replaced with: at least two panels positioned over the | The first sentence after the “SUMMARY AND BACKGROUND OF THE INVENTION” heading. Original claim 1; FIGS. 1 and 2; col. 1, line 18 – col. 2, line 23. |

| Claim Amendment | Example Support in Original Patent for the Amendment |
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| <p>wastewater, each panel having a side characterized by an edge and a plurality of openings spaced apart from the edge, the panels being removably linked together in overlapping relationship such that gas from the wastewater can flow from underneath portions of the panels, through gaps between adjacent panels, to a location above the panels; and</p> <p>the openings in one of the panels being positioned above the openings in the other panel, and a fastener being disposed through at least two adjacent openings.</p> | |
| <p>6. The preamble has been corrected and “wherein” has been replaced with “where” to improve the readability of the claim.</p> | <p>Col. 1, lines 18-20.</p> |
| <p>7. The preamble has been corrected, “wherein” has been replaced with “where” to improve the readability of the claim, and the phrase “are formed of a geomembrane” has been replaced with “comprise a geomembrane.”</p> | <p>Col. 1, lines 18-20 and lines 37-39.</p> |
| <p>8. The preamble has been corrected and “wherein” has been replaced with “where” to improve the readability of the claim.</p> | <p>Col. 1, lines 18-20.</p> |
| <p>9. The preamble has been corrected, “wherein” has been replaced with “where” to improve readability, and the “means for controlling temperature” has been replaced with “each panel includes insulation material sealed inside, but not completely filling, a void in the panel.”</p> | <p>Col. 1, lines 18-20 and lines 37-39; FIG. 1.</p> |
| <p>11. The preamble has been corrected, the dependency has changed to claim 9, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the claimed insulation</p> | <p>Col. 1, lines 18-20 and lines 37-39; FIG. 1.</p> |

| Claim Amendment | Example Support in Original Patent for the Amendment |
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| material is sealed inside each panel by a weld. | |
| 12. The preamble has been corrected, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the claimed insulation material is rectangular. | Col. 1, lines 18-20; FIG. 1. |
| 14. The preamble has been corrected, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the panels further comprise a grommet circumscribing each opening. | Col. 1, lines 18-20; col. 2, lines 1-5; FIG. 1. |
| 19. The preamble has been corrected. | Col. 1, lines 18-20. |
| 20. The preamble has been corrected. | Col. 1, lines 18-20. |
| 21. The preamble has been corrected and “wherein” has been replaced with “where” to improve the readability of the claim. | Col. 1, lines 18-20. |
| 22. The preamble has been corrected, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to recite that the tie-down cable passes through the fastener. | Col. 1, lines 18-20; FIG. 2. |
| 28. The terms “pond” and “the steps of” have been removed from the preamble, and the steps of the claim have been amended to recite: linking at least two panels such that the panels are adjacent to each other; disposing the panels over wastewater that includes sewage and/or industrial waste; de-linking the panels; and re-linking the panels. | The first sentence after the “SUMMARY AND BACKGROUND OF THE INVENTION” heading; col. 1, lines 18-20; FIGS. 1 and 2. |
| 29. “Wherein” has been replaced with “where” to improve readability, and the claim | FIG. 1. |

| Claim Amendment | Example Support in Original Patent for the Amendment |
|---|---|
| has been amended to recite that the panels are rectangular. | |
| 30. “Wherein” has been replaced with “where” to improve readability, and the claim has been amended to recite that the rectangular panels are approximately seven and one-half feet wide and approximately forty feet long. | Col. 1, lines 35-37. |
| 31. “Wherein” has been replaced with “where” to improve readability, and the claim has been amended to recite that each panel comprises geomembrane. | Col. 1, lines 37-41. |
| 32. “Wherein” has been replaced with “where” to improve readability, and the claim has been amended to recite that each panel contains, but is not completely filled with, insulating material. | Col. 1, lines 37-39; FIG. 1. |
| 34. The dependency has been changed from claim 33, which has been canceled, to claim 32. “Wherein” has been replaced with “where” to improve readability, and the claim has been amended to recite that the insulating material is sealed inside a geomembrane through welding. | Col. 1, lines 37-39. |
| 35. “Wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the claimed insulating material is rectangular. | FIG. 1. |
| 36. “Wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that each panel comprises openings, and the linking includes placing a fastener through at least one pair of adjacent openings. | FIGS. 1 and 2. |
| 37. The dependency has changed to claim 36, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that each opening of each | Col. 2, lines 1-5; FIG. 1. |

| Claim Amendment | Example Support in Original Patent for the Amendment |
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| panel is circumscribed with a grommet. | |
| 38. The dependency has changed to claim 36, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the openings in each panel are adjacent to at least one edge of one side of the panel. | FIGS. 1 and 2. |
| 39. The dependency has changed to claim 36, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the linking comprises orienting the panels in an overlapping relationship. | FIG. 1. |
| 40. The dependency has changed to claim 36, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the method further comprises anchoring the linked panels over the wastewater. | Col. 2, lines 10-19 and original claim 1. |
| 43. The dependency has changed to claim 40, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the anchoring comprises anchoring the linked panels over the wastewater with an anchoring trench. | Col. 1, lines 10-11. |
| 44. The dependency has changed to claim 43, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the anchoring comprises using at least one tie-down cable. | FIG. 2. |
| 45. The dependency has changed to claim 43, “wherein” has been replaced with “where” to improve readability, and the claim has been amended to specify that the tie-down cable passes through at least one fastener. | FIG. 2. |

B. The Specification Has Been Amended

The specification has been amended to provide antecedent support for “wastewater.” The claims containing the aqueous solutions language have been canceled.

C. Independent Claims 5 and 28, and Their Dependents, Are Patentable over Dearing

1. The Anticipation Rejection Based on Dearing Is Overcome

a. Independent Claim 5

Independent claim 5 has been amended to more clearly distinguish Dearing. It now recites:

wastewater that includes sewage and/or industrial waste;
at least two panels positioned over the wastewater, each panel having a side characterized
by an edge and a plurality of openings spaced apart from the edge, the panels
being removably linked together in overlapping relationship such that gas from
the wastewater can flow from underneath portions of the panels, through gaps
between adjacent panels, to a location above the panels; and
the openings in one of the panels being positioned above the openings in the other panel,
and a fastener being disposed through at least two adjacent openings.

Dearing does not disclose wastewater that includes sewage and/or industrial waste. Neither sewage nor industrial waste is expressly disclosed in Dearing. Furthermore, neither Dearing’s statement that “[t]his invention relates generally to buoyant flexible covers floating on water or other liquids” or his statement that “[s]uch covers are adapted for use on ponds” inherently discloses sewage and/or industrial waste because neither “other liquids” nor “ponds” necessarily includes sewage and/or industrial waste. See Dearing at col. 1, lines 8-9 and line 34. As the Board explained in *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990), “[i]n relying on

inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” (Emphasis in original). “Inherency . . . may not be established by probabilities or possibilities. The mere fact that a thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). The Office has not made a showing of inherency, and the rejection of independent claim 5 and its rejection dependents is overcome and should be withdrawn.

If the Office maintains its position about anticipation based on an assertion that Dearing inherently discloses wastewater that includes sewage and/or industrial waste, Applicant requests that the Examiner prepare an affidavit and enter it into the file history of this application pursuant to 37 C.F.R. § 1.104(d)(2).

In addition, Dearing does not disclose at least two panels that each have a side characterized by an edge and a plurality of openings spaced apart from the edge, the panels being removably linked together in overlapping relationship such that gas from the wastewater can flow from underneath portions of the panels, through gaps between adjacent panels, to a location above the panels; and the openings in one of the panels being positioned above the openings in the other panel, and a fastener being disposed through at least two adjacent openings. While each combined sinker, abutment, and intercoupling unit 30 of Dearing appears to have an opening running through grommet 31, such openings in one cover section are not positioned above the openings in another cover section. *See* Dearing figures and col. 6, line 21 – col. 7, line 2. The angular pockets 34 of the intercoupling units 30 of one cover section will capture the edge of an adjacent cover section should the two edges override each other (col. 6, lines 45-49),

and those pockets will prevent further overlap so that the openings in the intercoupling units 30 will not overlap each other to any extent. Col. 6, lines 49-54.

For these additional reasons, the anticipation rejection of claim 5 and its dependents is overcome and should be withdrawn.

b. Independent Claim 28

Independent claim 28 and its dependents are novel over Dearing because Dearing does not disclose wastewater that includes sewage and/or industrial waste, as explained above. If the Office maintains its position about anticipation based on an assertion that Dearing inherently discloses wastewater that includes sewage and/or industrial waste, Applicant requests that the Examiner prepare an affidavit and enter it into the file history of this application pursuant to 37 C.F.R. § 1.104(d)(2).

2. The Obviousness Rejection Based on Dearing Is Overcome

a. Independent Claim 5

The Office suggests that it would have been obvious to use Dearing's cover system over a settling pond holding sewage and industrial wastes because Dearing mentions that his cover may be used on ponds (which the Office construes as including ponds that hold wastewater), and because it is "desirable to provide cover systems on settling ponds to maintain appropriate temperatures to enable bacteria to decompose the material within the pond." Applicant disagrees.

The Office cites no support for its statement that Dearing's use of the term "pond" in a patent that concerns swimming pool covers would be understood by those of ordinary skill in the art at the time of the invention as covering ponds that include sewage and/or industrial waste. The Office's position about what the term "pond" means in Dearing is not "capable of such

instant and unquestionable demonstration so as to defy dispute.” *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Accordingly, the Office’s approach is not supported by substantial evidence. As the Federal Circuit explained in *Zurko*:

With respect to **core factual findings** in a determination of patentability, however, the Board cannot simply reach conclusions based on its own understanding or experience – or on its assessment what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.

In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (emphasis added).

The MPEP provides instruction that follows the *Zurko* decision. MPEP § 2144.03 (“It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence on which the rejection was based.”) (citing *In re Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697).

Furthermore, as Michael Morgan explains in the enclosed declaration, he does not agree that those experienced with covering or insulating bodies of liquid containing sewage and/or industrial waste would have looked to Dearing to solve their problems. Morgan Decl. at ¶¶ 3-5. Dearing is concerned with covering swimming pools with a floating cover that will not suffer from the problems associated with the wind lifting the edges of the different cover units and blowing them around. Dearing is not concerned with insulation. Morgan Decl. at ¶ 5. In fact, Dearing advocates using his cover system to **transfer** solar energy to the pool to heat the pool water. *See* Dearing col. 1, lines 43-50; Morgan Decl. at ¶ 3. As Morgan explains:

in my experience, those of us who deal with problems relating to covering and/or insulating bodies of liquid that contain sewage and/or industrial waste do not look to cover systems designed for use on swimming pools (which do not contain potable water) for any solutions. That is simply a reality of our industry.

Morgan Decl. at ¶ 5.

For these reasons, the Office has not established a *prima facie* case of obviousness that is supported by substantial evidence, and the obviousness rejection of claim 5 and its dependents should be withdrawn.

Furthermore, Dearing does not suggest at least two panels that each have a side characterized by an edge and a plurality of openings spaced apart from the edge, the panels being removably linked together in overlapping relationship such that gas from the wastewater can flow from underneath portions of the panels, through gaps between adjacent panels, to a location above the panels; and the openings in one of the panels being positioned above the openings in the other panel, and a fastener being disposed through at least two adjacent openings. In general, Dearing seeks to reduce or eliminate the overlapping of cover sections, so there is no suggestion for positioning the openings in one cover section above the openings in another cover section.

For at least these additional reasons, the obviousness rejection of claim 5 and its dependents is overcome and should be withdrawn.

b. Independent Claim 28

Dearing fails to teach or suggest using his cover system over wastewater that includes sewage and/or industrial waste for the reasons set forth above. Accordingly, the obviousness rejection of claim 28 and its dependents should be withdrawn.

D. Independent Claims 5 and 28, and Their Dependents, Are Novel over Wilson

1. Independent Claim 5

Certain of the amendments to claim 5 also distinguish Wilson. Specifically, Wilson does not disclose or suggest at least two panels that each have a side characterized by an edge and a plurality of openings spaced apart from the edge, the panels being removably linked together in overlapping relationship such that gas from the wastewater can flow from underneath portions of

the panels, through gaps between adjacent panels, to a location above the panels; and the openings in one of the panels being positioned above the openings in the other panel, and a fastener being disposed through at least two adjacent openings. While sleeves 28a of Wilson each have openings spaced apart from an edge, sleeves 28a are not linked together in overlapping relationship. For this reason, the anticipation rejection of claim 5 and its dependents is overcome and should be withdrawn.

2. Independent Claim 28

Examined claim 28 recited de-linking the plurality of panels. The present version of claim 28 recites de-linking the panels. The Office has not explained where Wilson discloses de-linking any of its “panels.” Action at pages 5-6. More is needed to establish a proper rejection. *See* 37 C.F.R. § 104(c)(2); *see also* MPEP § 707.07(d) (“Where a claim is refused for any reason relating to the merits thereof it should be ‘rejected’ and the ground of rejection **fully and clearly stated**”) (emphasis added). For this reason alone, the Office has failed to carry its burden, and the anticipation rejection of claim 28 and its dependents should be withdrawn.

Furthermore, claim 28 has been amended to recite re-linking the panels. Wilson fails to disclose or suggest such a step. For this additional reason, the anticipation rejection of claim 28 and its dependents should be withdrawn.

E. The New Claims Are Patentable

1. New Independent Claim 50

Claim 50 is directed to a cover and wastewater combination comprising:

wastewater that includes sewage and/or industrial waste;

at least two panels removably linked to each other, the panels being positioned over and
in direct contact with the wastewater;

where each panel contains, but is not completely filled with, an insulation material.

None of the cited references teaches or suggests such a combination, where each panel contains, but is not completely filled with, an insulation material.

For example, the air in the protuberant cells 16 of the sheets of the cover sections of Dearing completely fills those cells, Dearing col. 4, lines 52-53, and Dearing does not suggest filling those cells with a material that would not completely fill them.

Additionally, the float blocks 22a in Wilson, to the extent that they can fairly be construed as removably linked panels (which Applicant does not concede), are “preferably . . . a hollow structure made of molded polyethylene” Wilson col. 5, lines 61-66. The hollow space of those blocks would naturally be filled completely with gas (presumably air). In the other cover system embodiment of Wilson (see FIGS. 1-7), the float blocks 22 are shown as completely filling the sleeves 28 that encase them.

New claim 50 and its dependent claims should be allowed.

2. New Independent Claim 55

Claim 55 is directed to a cover and wastewater combination comprising:

Wastewater that includes sewage and/or industrial waste;

at least two panels removably linked together in overlapping relationship over the

wastewater; and

means for removably linking the panels in overlapping relationship, the means

comprising fasteners and openings defined in each of the panels;

where the openings in one of the panels are positioned above the openings in another of

the panels to form pairs of openings of different panels, and one of the fasteners is

disposed through each pair of overlapping openings so as to removably link the overlapping panels.

None of the cited references teaches or suggests all of the limitations of this claimed combination. Accordingly, claim 55 should be allowed.

3. New Independent Claim 56

Claim 56 is directed to a cover and wastewater combination comprising:

wastewater that includes sewage and/or industrial waste; and

a plurality of panels positioned over the wastewater, the panels being removably linked together to form a non gas-tight cover system.

None of the cited references teaches or suggests all of the limitations of this claimed combination. For example, Dearing does not disclose or suggest wastewater that includes sewage and/or industrial waste, as explained above. Furthermore, the cover systems disclosed in Wilson are gas-tight cover systems directed to gas collection. New claim 56 and its dependents should be allowed.

4. New Independent Claim 60

Claim 60 is directed to a cover that comprises:

a plurality of panels configured for use over wastewater, the panels being removably

linked together such when the cover is positioned over wastewater, gas from the wastewater can travel from below the cover to above the cover through gaps in the removably linked panels;

each panel comprising a material that contains, but is not filled completely with, insulation.

Claim 60 is patentable over Dearing and Wilson for at least the same reasons as new independent claim 50. Accordingly, new claim 60 and its dependents should be allowed.

5. New Independent Claim 63

New claim 63 is directed to a method of manipulating a cover comprising:

linking at least two panels such that (a) the panels are adjacent to each other and (b) gas can migrate through gaps between the panels, each panel comprising material that contains, but is not completely filled with, insulation; and
disposing the panels over wastewater that includes sewage and/or industrial waste.

None of the cited references teaches or suggests all of the limitations of this claimed method. New claim 63 and its dependents should be allowed.

F. Correction of Position

Applicant argued in its proposed amendment that the statements of Claude G. Degarie in a declaration from another patent file history regarding the difference between “clean water” systems and “dirty water” systems supported Applicant’s position concerning Dearing. Applicant retracts that position. Michael Morgan explains why in paragraph 6 of his enclosed declaration.

G. Conclusion

Applicant respectfully submits that claims 1-9, 11, 12, 14, 19-22, 28-32, 34-40, 43-45 and 50-70 are in condition for allowance. Should the examiner have any questions, comments, or suggestions relating to this application, he is invited to contact the undersigned attorney at (512) 536-3031 in an effort to narrow any perceived patentability issues and advance prosecution as quickly as possible.

Date: March 14, 2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark T. Garrett", with a stylized flourish at the end.

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